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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,590	08/30/2001	Naoki Kuwata	MIPFP006	6411

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EXAMINER	
AGGARWAL, YOGESH K	
ART UNIT	**PAPER NUMBER**
2622	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/941,590	KUWATA ET AL.	
	Examiner	Art Unit	
	Yogesh K. Aggarwal	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *05/30/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/18/2006 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-56 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 4-8, 11-18, 21, 23, 27-30, 33-39, 43-46 and 51-56 are rejected under 35 U.S.C. 102(e) as being anticipated by Anabuki et al. (US Patent # 6,441,913).

[Claim 1]

Anabuki et al. teaches an input portion 1 (figure 1) receives image data from an external device through a communication cable of a network or facsimile machine or read out of an external storage device (col. 4 lines 4-7). Anabuki further teaches that the image data input to the input portion 1 have been converted in their image structure to reduce the amount of data, wherein the

image structure refers to an original image, such as resolution, color space and gradation level (col. 3 line 50-col. 4 line 3, col. 5 lines 40-55). Anabuki also teaches the image data input to the input portion 1 is such that the image structures of the image data are converted into the image structures suitable for those data, and are arranged into a predetermined image format. A header storing information on the image structures of the respective data is attached to the image format (col. 6 lines 5-14, figure 3). Anabuki teaches a reference numeral 21 that is a header information extracting information and 22 is a color space-recognizing portion (col. 6 lines 43-48, figure 4). Therefore it is noted that an external device generates image data and the color space data and stores color space (in the header portion) and image data in association with each other. Finally Anabuki also teaches that the color-space converting portion 31 receives the color space information from the color space recognizing portion 22 and the color space information of the output device from the output-device image-structure storing portion 8, and converts the color space of the image data expanded by the expanding portion 4 into the color space of the output device (col. 7 lines 13-25).

[Claim 4]

Anabuki teaches a means for assembling an output file that contains said image data, and said color space information (figures 3 and 4).

[Claim 5]

Anabuki teaches an interface for communicating said output file to said external device (col. 3 line 50-col. 4 line 7, col. 5 lines 40-55, figures 1-5).

[Claim 6]

Claim 6 is similar to claim 1 except means for designating with color space information an output color space to be used by an image processing apparatus in color space conversion, said image processing apparatus being a different apparatus than said means for acquiring data (See col. 7 lines 13-25).

[Claim 7]

The second color space (RGB or CMYK) has a gamut width at least equal to a color space like RGB (col. 8 lines 17-24, RGB color space used in the synthesis of the image data which inherently has a gamut width at least equal to a color space like RGB or CMYK).

[Claims 8, 11-17]

Method claims 8, 11-17 corresponds to apparatus claims 1, 4-7 and are therefore analyzed and rejected the same as previously discussed with respect to apparatus claims 1, 4-7.

[Claim 18]

Anabuki teaches matrix values used for color spaces (col. 8 lines 32-34).

[Claim 21]

Anabuki teaches that the image data generation mechanism is a facsimile machine that also performs the functionality of a scanner (col. 4 lines 4-7).

[Claim 23]

Claim 23 recite what was discussed with respect to claim 4.

[Claim 27]

Anabuki teaches a communication cable or network for communicating said output file to said external device (col. 4 lines 4-7), which would inherently be transmitted as an electric signal.

[Claims 28-29]

Claims 28 and 29 recite what was discussed with respect to claims 6 and 7.

[Claims 30, 33-35]

Computer program storing claims 30, 33-35 corresponds to apparatus claims 1, 4, 6 and 7 and are therefore analyzed and rejected the same as previously discussed with respect to apparatus claims 1, 4, 6 and 7 respectively.

[Claim 38]

Anabuki teaches an image processing apparatus for performing image processing on image files containing image data and color space information, said image data and said color space information being input from an independent image data generating apparatus, comprising: means for acquiring an image file containing image data; means for retrieving said color space information from said image file acquired by said means for acquiring; and means for converting the color space of said image data based on said color space information retrieved by said means for retrieving (col. 7 line 13-col. 8 line 42, figures 4-6).

[Claim 39]

Anabuki teaches that if the image structure information is not present, the image-structure information may be extracted from the whole image data or preset values may be used for the image structure portion (col. 7 lines 52-56).

[Claims 36 and 43]

Computer program storing claim 36 and method claim 43 correspond to apparatus claim 38 and are therefore analyzed and rejected the same as previously discussed with respect to apparatus claim 38.

[Claims 37 and 44]

Computer program storing claims 37 and 44 correspond to apparatus claim 39 and are therefore analyzed and rejected the same as previously discussed with respect to apparatus claim 39.

[Claim 45]

Claim 45 recites what was discussed with respect to claim 38.

[Claim 46]

Claim 46 recites what was discussed with respect to claim 39.

[Claim 51]

Anabuki teaches a communication cable or network for communicating said output file to said external device (col. 4 lines 4-7), which would inherently be transmitted as an electric signal.

[Claim 52]

Anabuki et al. teaches an input portion 1 (figure 1) receives image data from an external device through a communication cable of a network or facsimile machine or read out of an external storage device (col. 4 lines 4-7). Anabuki further teaches that the image data input to the input portion 1 have been converted in their image structure to reduce the amount of data, wherein the image structure refers to an original image, such as resolution, color space and gradation level (col. 3 line 50-col. 4 line 3, col. 5 lines 40-55). Anabuki also teaches the image data input to the input portion 1 is such that the image structures of the image data are converted into the image structures suitable for those data, and are arranged into a predetermined image format. A header storing information on the image structures of the respective data is attached to the image format (col. 6 lines 5-14, figure 3). Anabuki teaches a reference numeral 21 that is a header information extracting information and 22 is a color space-recognizing portion (col. 6 lines 43-48, figure 4).

Therefore it is noted that an external device generates image data and the color space data and stores color space (in the header portion) and image data in association with each other. Finally Anabuki also teaches that the color-space converting portion 31 receives the color space information from the color space recognizing portion 22 and the color space information of the output device from the output-device image-structure storing portion 8, and converts the color space of the image data expanded by the expanding portion 4 into the color space of the output device (col. 7 lines 13-25).

[Claim 53]

Claim 53 recites what was previously discussed with respect to claims 6 and 52.

[Claim 54]

Method claim 54 corresponds to apparatus claim 52 and is therefore analyzed and rejected the same as previously discussed with respect to apparatus claim 52.

[Claim 55]

Claim 55 recites what was discussed with respect to claims 17 and 52.

[Claim 56]

Claim 56 recite what was discussed with respect to claims 6, 17 and 52.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2, 3, 9, 10, 19, 20, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anabuki et al. (US Patent # 6,441,913) in view of Nakajima (US Patent # 6,650,437).

[Claims 2 and 3]

Anabuki teaches an external storage device that stores the image data and color space information for multiple color spaces corresponding to multiple devices (col. 3 line 50-col. 4 line 7, col. 5 lines 40-55). Anabuki fails to teach means for designating color space information includes means for displaying said plurality of items of color space information, and means for selecting one item of color space information from among said displayed items of color space information.

However Nakajima teaches an image information exchanger device 14 like a PC (col. 11 lines 35-42) has a hard disk 88 that functions as a spool 90 (col. 11 lines 49-56) and is a means for storing a plurality of items of color space information designated for different types of color spaces and a plurality of combinations of identifying information (e.g. different values of color space =1,2,3 corresponds to LUT1, LUT2 and LUT3) for candidate image processing apparatuses (different types of scanners A, B and C) and associated color space information for each candidate image processing apparatus (col. 15 lines 10-64, figure 5). A image information exchanger device 14 which is a PC as stated (col. 11 lines 35-42) has a display device 56 and keyboard 58 like one shown in figure 2 which can inherently be used as a means for designating color space by displaying said plurality of items of color space information on the monitor 56, and selecting one item of color space information (by designating color space values 1, 2 or 3) and candidate image processing apparatuses from among the color spaces (LUT 1, LUT2, LUT3)

and candidate image processing apparatuses (scanners A, B and C) information by the keyboard 56 which are stored in the hard disk.

Therefore taking the combined teachings of Anabuki and Nakajima, it would have been obvious to one skilled in the art to have been motivated to have means for designating color space information includes means for displaying said plurality of items of color space information, and means for selecting one item of color space information from among said displayed items of color space information in order for the user to visualize the color display information on the display thereby making it more user-friendly.

[Claims 9-10,19-20]

Claims 9, 10, 19 and 20 recite what was discussed with respect to claims 2 and 3.

[Claims 31, 32]

Computer program storing claims 31 and 32 corresponds to apparatus claims 2 and 3 and are therefore analyzed and rejected the same as previously discussed with respect to apparatus claims 2 and 3 respectively.

7. Claims 22, 26, 40-42 and 47-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anabuki (US Patent # 6,441,913) in view of Buhr et al. (US Patent # 5,528,339).

[Claim 22]

Anabuki teaches the limitations of claim 21 but fails to teach wherein the image generation mechanism is a DSC. However Buhr teaches that the device generating the image and color space information to be an electronic cameras in order to capture the scenes independently (col. 26 lines 14-25, col. 14 lines 40-45). Therefore taking the combined teachings of Anabuki and

Buhr, it would have been obvious to one skilled in the art to have been motivated to have the image generation mechanism being a DSC in order to capture the scenes independently instead of a scanner wherein the scenes are captured via a storage medium as an input.

[Claim 26]

Anabuki teaches the limitations of claim 17 but fails to teach wherein the memory is a removable memory card. However Buhr teaches that the image data and color space are stored on a Kodak photo CD or a PCMCIA card (col. 26 lines 14-25, col. 14 lines 40-45) in order to have a portable memory medium which can be easily be carried to any other device capable of color space conversion. Therefore taking the combined teachings of Anabuki and Buhr, it would have been obvious to one skilled in the art to have been motivated to have the image data and color space are stored on a PCMCIA card in order to have a portable memory medium which can be easily be carried to any other device capable of color space conversion

[Claims 40, 41]

Anabuki teaches the limitations of claim 38 but fails to teach that the image data contained in said image file is represented by a first color space, said first color space is YCC; said means for acquiring an image file converts the color space of the image data contained in said image file from said first color space to a second color space, said second color space is first RGB; and said means for converting the color space converts the color space of said image data from said second color space to a third color space, said third color space is a second RGB.

However Buhr et al. teach image data contained in said image file is represented by a first color space, said first color space is YCC; said means for acquiring an image file converts the color space of the image data contained in said image file from said first color space to a second

color space, said second color space is first RGB; and said means for converting the color space converts the color space of said image data from said second color space to a third color space, said third color space is a second RGB (col. 28 lines 32-47, figure 15) in order to convert the image signals stored into appropriate color space for creating a reproduced image on the selected output device.

Therefore taking the combined teachings of Anabuki and Buhr, it would have been obvious to one skilled in the art to have been motivated to have the image data contained in said image file is represented by a first color space, YCC, means for acquiring an image file converts the color space of the image data contained in the image file from the first color space to a second color space, a first RGB and means for converting the color space converts the color space of said image data from said second color space to a third color space, a second RGB in order to convert the image signals stored into appropriate color space for creating a reproduced image on the selected output device.

[Claim 42]

It would be inherent (well known to one skilled in the art) that the second color space (first RGB, e.g. s-RGB) has a gamut width at least equal to a color space like RGB.

[Claims 47-49]

Claims 47-49 recite what was discussed with respect to claims 40-42.

[Claim 50]

Buhr teaches in figure 17 a third color space, CIELAB (col. 29 lines 42-61).

8. Claims 16, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anabuki (US Patent # 6,441,913) in view of Parulski et al. (US Patent # 6,310,647).

[Claims 16 and 24]

Anabuki teaches the limitations of claims 15 and 23 but fails that the propagated file structure is an Exif file structure. However Parulski et al. teaches an image file format that is compatible with both Flashpix and Exif (col. 3 lines 49-65) in order to have a standard (exif) that can be opened by any computer application that incorporates a JPEG reader which is a widely used standard compared to Flashpix that is relatively new.

Therefore taking the combined teachings of Anabuki and Parulski, it would have been obvious to one skilled in the art to have been motivated to have used an Exif file structure instead of Flashpix in order to have a standard (exif) that can be opened by any computer application that incorporates a JPEG reader which is a widely used standard compared to Flashpix that is relatively new.

[Claim 25]

Parulski teaches in Table 2 an Exif application marker (read as tag stored in a makernote portion) storing color space values (col. 4 line 66).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K. Aggarwal whose telephone number is (571) 272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YKA
July 7, 2006

VIVEK SRIVASTAVA
PRIMARY EXAMINER